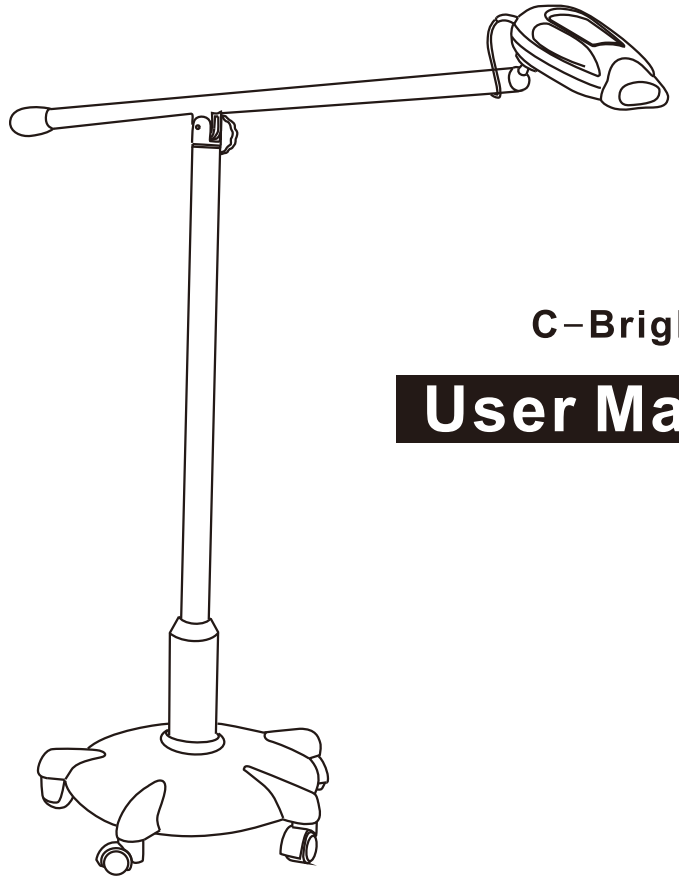
Teeth Whitening Accelerator



# C-Bright

# User Manual


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**Recommended separation distances between portable and mobile RF communications equipment and the C-Bright.**

The C-Bright is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the C-Bright can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the C-Bright as recommended below, according to the maximum output power of the communications equipment.

| Rated maximum output power of transmitter (W) | Separation distance according to frequency of transmitter | | |
|---|---|---|---|
| | 150 kHz to 80 Mhz $d=1.2\times P^{1/2}$ | 80 Mhz to 800 MHZ $d=1.2\times P^{1/2}$ | 80 MHz to 800 Mhz $d=2.3\times P^{1/2}$ |
| 0.01 | 0.12 | 0.12 | 0.23 |
| 0.1 | 0.38 | 0.38 | 0.73 |
| 1 | 1.2 | 1.2 | 2.3 |
| 10 | 3.8 | 3.8 | 7.3 |
| 100 | 12 | 12 | 23 |

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.
NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

| Guidance and Manufacture's Declaration – Electromagnetic Immunity | | | |
|---|---|---|---|
| The C-Bright is intended for use in the electromagnetic environment specified below. The customer or the user of C-Bright should assure that it is used in such an environment. | | | |
| **Immunity test** | **IEC 60601 test level** | **Compliance level** | **Electromagnetic environment - guidance** |
| Conducted RF<br>IEC 61000-4-6 | 3 Vrms<br>150 kHz to 80 MHz<br>6 Vrms in ISM<br>ban 3 V/m<br>80 MHz to 2.7 GHz | 3 Vrms<br>150 kHz to 80 MHz<br>6 Vrms in ISM<br>bands | Portable and mobile RF communications equipment should be used no closer to any part of the C-Bright, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. |
| Radiated RF<br>IEC 61000-4-3 | 385MHz-<br>5785MHz Test<br>specifications for<br>ENCLOSURE<br>PORT<br>IMMUNITY to<br>RF wireless<br>communication<br>equipment<br>(Refer to table 9<br>of IEC 60601-1-<br>2:2014) | 3 V/m<br>80 MHz to<br>2.7GHz<br>385MHz-<br>5785MHz Test<br>specifications for<br>ENCLOSURE<br>PORT<br>IMMUNITY to<br>RF wireless<br>communication<br>equipment<br>(Refer to table 9<br>of IEC 60601-1-<br>2:2014) | Recommended separation distance<br>$d=1.2\times P^{1/2}$<br>$d=1.2\times P^{1/2}$ 80 MHz to 800 MHz<br>$d=1.2\times P^{1/2}$ 800 MHz to 2,5 GHz<br>where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and *d* is the recommended separation distance in meters (m).<br>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,[a] should be less than the compliance level in each frequency range.[b]<br>Interference may occur in the vicinity of equipment marked with the following symbol: |

NOTE 1 $U_T$ is the a.c. mains voltage prior to application of the test level.
NOTE 2 At 80 MHz and 800 MHz, the higher frequency range applies.
NOTE 3 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic sitesurvey should be considered. If the measured field strength in the location in which the C-Bright is used exceeds the applicable RF compliance level above, the C-Bright should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the C-Bright.

b Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.



# Introduction

Congratulations on the purchase of C-Bright, prior to using this product, please read this instruction carefully for setup, usage and maintenance instructions. Please keep this instruction handy as a reference for your whitening accelerator.

- **Principle**

The C-Bright teeth whitening accelerator is using a strong blue LED light with a specifically wavelength (between 420-500nm), this light activates tooth whitener, which oxidize the tooth stains on both the tooth surface and deep inside the dentin to achieve the effect of teeth whitening.

- **Features**

  - Double handles, drug type arm, multi-angle adjustment to make the operation more flexibly
  - Unique semi-circular head design, both arches whitened at the same time
  - 6pcs high power LED, fan-cooled
    10s and 30s as a curing ligh,1-30minutes as a whitening accelerator
  - 6 light intensities, suitable for more brands tooth whitening gel
  - LCD module screen shows all the information, all the operation is so easy
  - Integrated type is available

# Intended Use

C-Bright is an electronic device used to whiten teeth.

# Contraindications

- In case where a patient has been fitted with an implanted heart pacemaker (or other electrical instrument) and has been cautioned against the use of small electrical appliances (such as electric shavers, hair dryers etc.) It is recommended that the C-Bright not be used.

- Don't use this machine for the persons under the age of 16, the pregnant women and the patients with severe gum disease, such as :

  ① one with injuries of the oral cavity
  ② one having broken teeth or lack of some teeth
  ③ one having uncrowned or defective dental plate incisors
  ④ one suffering from periodontal diseases
  ⑤ one with serious dental calculus

## Adverse Reaction

None known.

## Warning

Before using, the user shall determine the suitability of the product for its intended use and the user assumes all risk and liability whatsoever in connection with such use.

- C-Bright is only used by a properly licensed practitioner.
- The manufacturer will not take any responsibility for any malfunction, damage, or accident of personal bodily injury due to the improper maintenance, or repair of the whitening accelerator by parties other than us.
- Before connecting the power, make sure that the power voltage is accord with the voltage range. Improper voltage would damage the unit and cause the danger to the patient and/or the operator.
- After the installation, user should test the stability of equipment first. We does not advise the use of C-Bright on patients fitted with pacemakers (or other electrical instrument) for safety reasons.
- Do not expose C-Bright to any liquid.
- Do not use in the presence of inflammable products.
- Don't stare at the light with your eyes without protection; it's harmful to your eyes. In the operation, patient should wear the protective glass to avoid the damage of eyes.
- Loosen the locknut and handwheel (the flood type's) first to adjust position of the whitening accelerator. Or it will cut the working life of whitening accelerator.



| **Guidance and Manufacture's Declaration – Electromagnetic Immunity** | | | |
|---|---|---|---|
| The C-Bright is intended for use in the electromagnetic environment specified below. The customer or the user of C-Bright should assure that it is used in such an environment. | | | |
| **Immunity test** | **IEC 60601 test level** | **Compliance level** | **Electromagnetic environment - guidance** |
| Electrostatic discharge (ESD) IEC 61000-4-2 | ±8 kV contact ±2 kV, ±4 kV, ±8 kV,±15 kV air | ±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air | Floors should be wood, concrete or ceramic tile. If floor are covered with synthetic material, the relative humidity should be at least 30%. |
| Electrical fast transient/burst IEC 61000-4-4 | ±2kV for power supply lines ±1 kV for Input/output lines | ±2kV for power supply lines ±1 kV for Input/output lines | Mains power quality should be that of a typical commercial or hospital environment. |
| Surge IEC 61000-4-5 | ±0.5 kV & ±1 kV differential mode ±0.5 kV, ±1 kV & ± 2 kV common mode | ±0.5 kV & ±1 kV differential mode ±0.5 kV, ±1 kV & ± 2 kV common mode | Mains power quality should be that of a typical commercial or hospital environment. |
| Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11 | 100 % *UT* (100% dip in *UT.)* for 0.5 cycle 100 % *UT* (100% dip in *UT.)* for 1 cycle 30 % *UT* (70% dip in *UT)* for 25/30 cycles 100 % *UT* (100% dip in *UT.)* for 250/300 cycle | 100 % *UT* (100% dip in *UT.)* for 0.5 cycle 100 % *UT* (100% dip in *UT.)* for 1 cycle 30 % *UT* (70% dip in *UT)* for 25/30 cycles 100 % *UT* (100% dip in *UT.)* for 250/300 cycle | Mains power quality should be that of a typical commercial or hospital environment. If the user of the C-Bright requires continued operation during power mains interruptions, it is recommended that the C-Bright be powered from an nint erruptible power supply or a battery. |
| Power frequency (50/60 Hz) magnetic field IEC 61000-4-8 | 3A/m | 3A/m | Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment. |
| **NOTE**:UT is the a.c. mains voltage prior to application of the test level. | | | |

# EMC

This product needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided, and this device can be affected by portable and mobile RF communications equipment.

**⚠ Caution:**

- Do not use a mobile phone or other devices that emit electromagnetic fields, near the device. This may result in incorrect operation of the device.
- This device has been thoroughly tested and inspected to assure proper performance and operation!
- This device should not be used adjacent to or stacked with other equipment and that if adjacent or stacked use is necessary, this device should be obser -ved to verify normal operation in the configuration in which it will be used.

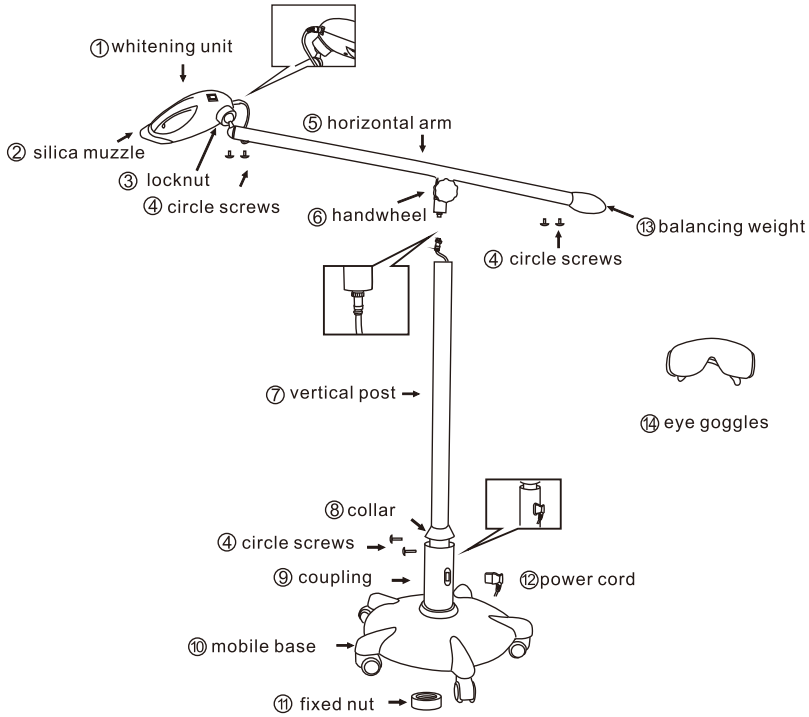
| **Guidance and Manufacture's Declaration-Electromagnetic Emission** | | |
|---|---|---|
| The C-Bright is intended for use in the electromagnetic environment specified below. The customer or the user of C-Bright should assure that it is used in such an environme | | |
| **Emission test** | **Compliance** | **Electromagnetic Environment-Guidance** |
| RF emissions CISPR 11 | Group 1 | The C-Bright use RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment. |
| RF emission CISPR 11 | Class B | The C-Bright is suitable for use in all establish-ments, including domestic establishments directly connected to the public low-voltage power supply network with specific requirement. |
| Harmonic emissions IEC 61000-3-2 | Class A | |
| Voltage fluctuations/ flicker emissions IEC 61000-3-3 | Complies | |



# Structure and Composition

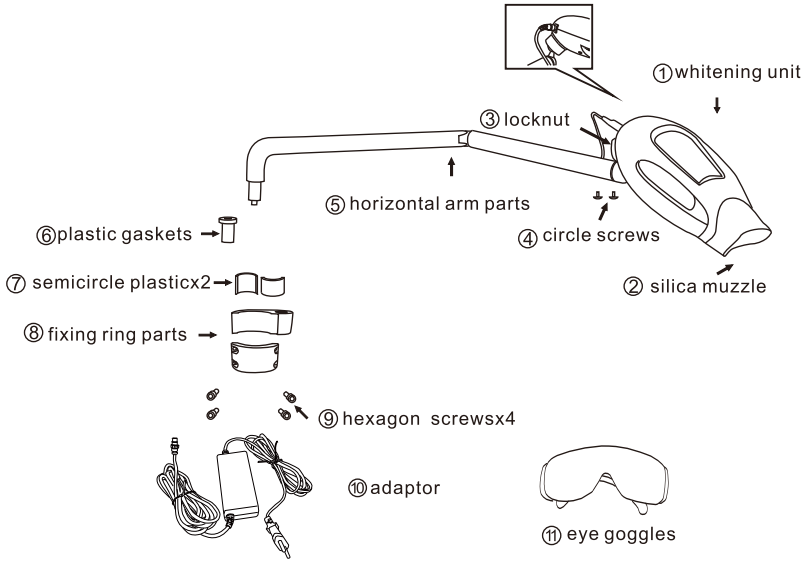
Before the first using, please check the accessories and make sure they are all in good condition.

- **Floor type**




| | | | | | |
|---|---|---|---|---|---|
| 1 | Whitening unit | 6 | Handwheel | 11 | Fixed nut |
| 2 | Silica muzzle | 7 | Vertical post | 12 | Power cord |
| 3 | Locknut | 8 | Collar | 13 | Balancing weight |
| 4 | Circle screws | 9 | Coupling | 14 | Eye goggles |
| 5 | Horizontal arm | 10 | Mobile base | 15 | Instructions |

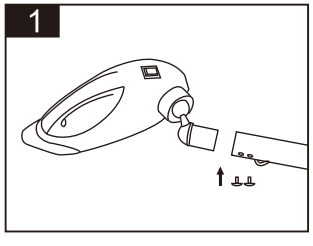
- **Integrated type**




| | | | | | |
|---|---|---|---|---|---|
| 1 | Whitening unit | 5 | Horizontal arm part | 9 | Hexagon screws |
| 2 | Silica muzzle | 6 | Plastic gaskets | 10 | Adaptor |
| 3 | Locknut | 7 | Semicircle plastic | 11 | Eye goggles |
| 4 | Circle screws | 8 | Fixing ring parts | 12 | Instructions |

## Installation

- **Floor type**




1.Connect the whitening unit and horizontal arm with the two circle screws which tightened in the whitening unit ,please take them out first.



## Disposal of Medical Device

The device and accessories are to be disposed of according to local regulations after their service lives. Alternatively, they can be returned to the dealer or the manufacturer for recycling or proper disposal.

## Guarantee

C-Bright whitening unit is guaranteed for 12 months from the date of purchase. The accessories (Silica Muzzle, Protective glasses etc.) are not covered by warranty.

The guarantee valid for normal usage conditions. Any modification or accidental damage will render the guarantee void.

We will repair or replace, at its option, a defective unit. This warranty is in lieu of all warranties of merchantability, fitness for purpose or other warranties express or implied. We do not accept liability for any loss or damage, direct, consequential or otherwise, arising out of the use of or the inability to use the product herein described.

## Standard Symbols

| | | | |
|---|---|---|---|
| ⚠ | Caution! | ⎓ | Direct current |
| ⧈ | Class II equipment | | WEEE directive marking |
| | Type B equipment | | Refer to operator's manual |
| REF | Catalogue number | | This way up |
| SN | Serial number | | Fragile, handle with care |
| | Keep away from rain | EU REP | EuropeanUnion agent |
| CE | CE marked product | | |

**Disinfection**

Wipe the accessories with a piece of gauze that has been dampened with Ethanol for disinfection (Ethanol 75%) and wrung out thoroughly.

**Drying**

Dry immediately after cleaning and disinfection. It is recommended to use compressed air to dry.

**Sterilization**

Sterilizable Part: the silica muzzle
Immediately after drying, put the silica muzzle into a steam sterilization bag for sealed packaging.
Sterilization Method: Autoclave
Recommended Temperature and Time: 5 minutes at 134℃

## Technical Specification

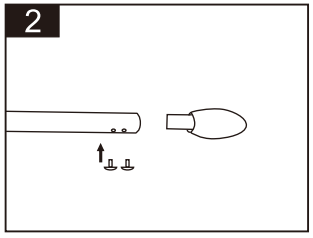
| | |
|---|---|
| Power supply: | Input AC 100-240V 50/60Hz<br>Output DC 12V 3A |
| Light source: | 6pcs high power LED |
| Light intensity: | 6 intensities, maximum >1000W/$m^2$ |
| Wavelength: | 420nm-500nm |
| Working time: | 10s, 30s, 1min, 2min, 5min, 8min, 10min, 15min, 20min, 30min |

Protection type against electrical shock: Class II

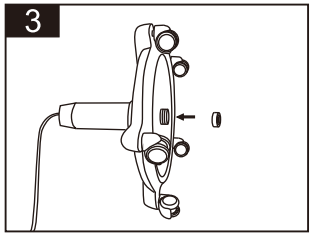
## Operation and Storage Environment

| | |
|---|---|
| Temperatures: | Operating: +5~+40℃<br>Storage: -10~+55℃ |
| Humidity: | Operating: 20%~80%<br>Storage: ⩽93% |
| Atmospheric pressure: | Operating: 86~106kPa<br>Storage: 50~106kPa |

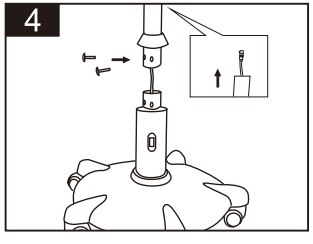




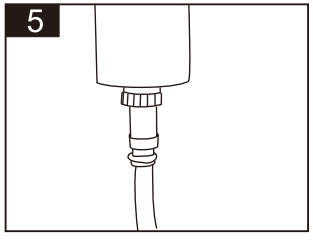

2. Insert the balancing weight into the horizontal arm and fix with the two circle screws which tightened in the balancing weight, please take them out first.



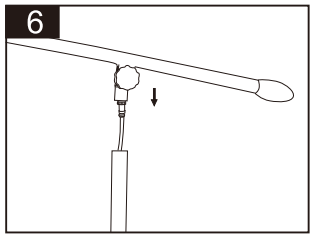

3. Connect the mobile base and the coupling by tightening the fixed nut. Make sure that is tighten, or the vertical post will shake when device used.



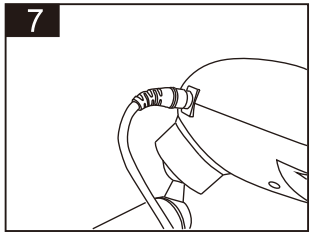

4. Pass the coupling wire through the vertical post and move the collar upward to fix the vertical post with the two circle screws which tightened in the coupling, please take them out first.



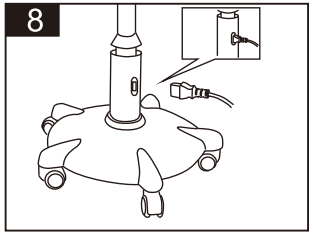

5.Connect the plugs of the horizontal arm and vertical post.




6.Put the horizontal arm on to the vertical post and adjust the position of the horizontal arm with the handwheel.

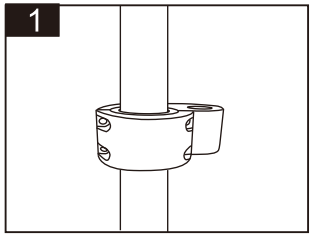



7.Put the plug of the horizontal arm into the jack of the whitening unit.




8.Connect the power cord.

- **Integrated type**




1. Clamp the king post of the dental unit with two fixing ring parts and make sure the two semicircle plastics between them.



**Treatment Range**:

C-Bright is suitable for anyone who wants to their teeth. This includes people with teeth that have been stained by smoking or by substances like coffee or tea. It also whitens teeth stained by tetracycline, speckled by fluoride or hereditary discoloration.

## Trouble Shooting

If you experience a malfunction, please try to resolve the problem by using the chart below. If the machine is still malfunction, please contact our dealer for further instruction and assistance.

| Problem | Cause | Method |
|---|---|---|
| Unit does not power on | Bad connection of power cord | Inspect the connection of power cord |
| | Main power switch is in “off” position (rear of unit) | Turn main power switch on |
| | Adaptor failures | Please contact our dealer |
| | Unit failures | Please contact our dealer |
| “E1” appears on the screen | LED burned out | Please contact our dealer |
| “E2” appears on the screen | Fan has gotten stuck from dust or debris | Remove the debris |
| | Fan failures | Please contact our dealer |
| “E3” appears on the screen | Supply failures | Check the power (the adaptor) |

## Cleaning, Disinfection and Sterilization

The whitening unit and the silica muzzle can be cleaned with alcohol or neutral detergent. It’s not allowed to use caustic or rubbing detergent.

**Cleaning**

Clean off the silica muzzle with running water and a soft brush and then wipe off the water.

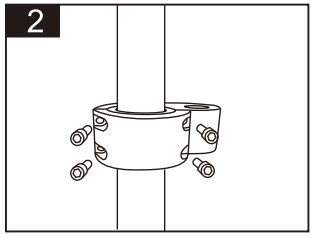
teeth and make sure that the dental dam has been solidified so as to protect the gum.

7. Mix the hydrogen peroxide and the whitening powder into paste (only the paste which does not drop off the brush reaches the standard).
8. Paint the whitening gel (the paste) on 16 or more dry teeth with the thickness of 2or 3mm.
9. Adjust the whitening accelerator and choose different modes(light intensity and timer) accordingly.
10. Suppose 8 minutes or 10 minutes as a period of treatment. Switch the light on. The machine will stop automatically while the time finished and beeper will emit 3 times for notice. Remove the lamp and suck away the whitening gel. Clean the gel with the cotton rolls if necessary and no rinse is needed.
11. Repeat step 7-10 twice to carry on the second and the third cycles.
12. Usually ,3 cycles treatment will bring a bright result.
13. At the completion of the treatment period the whitening compound will be suctioned and washed off. Then dental dam and any other isolating materials or devices will be removed. And patient should clean the oral cavity by rinsing out.
14. After the bleaching treatment has been completed the dentist should make another shade evaluation so to see how much whitening has been achieved. The dentist should document the post treatment whitening outcome with a picture too.

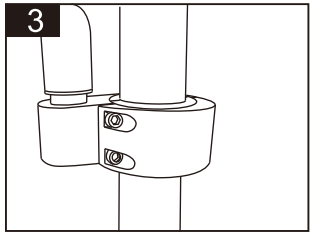
**Precautions for use**:

1) Keep away from colored drinks and food (such as smoke, black tea, coffee, wine etc ) for 2 or 3 days after the treatment.
2) Avoid cold drinks or hot drinks for the first 24 hours if there is any tooth sensitivity.
3) It is suggested that every period of treatment should be divided into 3 periods for its best performance. (30 minutes per treatment is available.)
4) If the patient feels ache or has comfortlessness caused by the treatment or the medicine, the ache will disappear in one or two days.

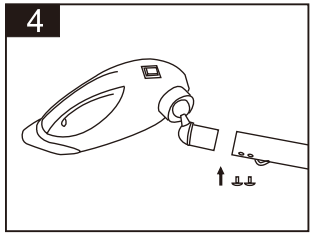




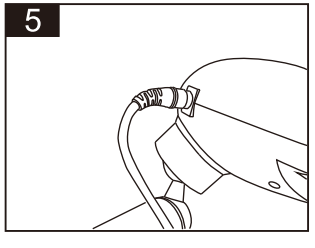

2. Fasten by the 4 hexagon screws which screwed in the fixing ring parts, please take them out first.



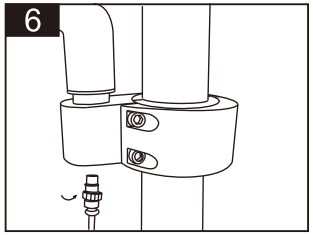

3.Insert one end of the horizontal arm parts into the hole of the fixing pedestal.



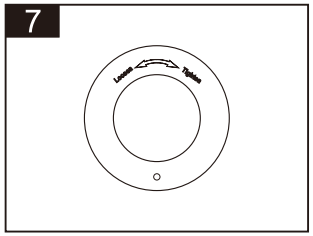

4.Connect the whitening unit and horizontal arm with the two circle screws which tightened in the whitening unit ,please take them out first.




5.Put the plug of the horizontal arm into the jack of the whitening unit.




6.Connect the adaptor plugs,and turn anticlockwise to tighten.




7. Adjust the whitening unit, and fasten it by rotating the locknut to dead end.(note: make sure the locknut is loose when adjust the hitening unit, or it will cut service life of whitening unit.)

## Use Method

**Use the device**

**1.** Turn on the main power switch. The screen displays as in Fig.1, unit is in ready status. Beeper emits 2 beeps

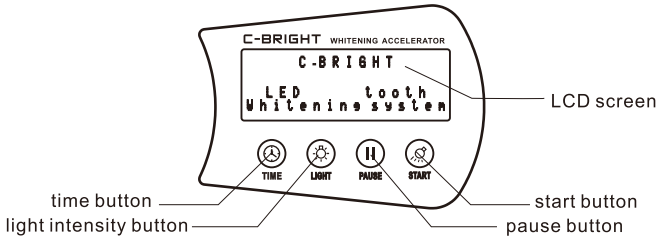



Fig. 1

**2.** User can select the appropriate time by pressing the TIME button, the adjustable range: 10s,30s,1m, 2m, 5m, 8m, 10m, 15m, 20m, 30m.

**Note**:**10s**,**30s timer can be used as a curing light to solidify the dental dam.**



**3.** User can select the appropriate light intensity by pressing the LIGHT button, there are six light intensity modes: LOW, LOW+, MID, MID+, HIGH, HIGH+,

**Note: HIGH+ is full power mode, HIGH is about 90%,MID+ is about80%, MID is about 70%, LOW+ is about 60%, LOW is about 50%.**

**4.** Press the START button to begin work, blue light comes out and time begins countdown until 0. In the process beeper will notice the user every five minutes passed.

**5.** In working process, if you press the PAUSE button, the unit will break off; press the PAUSE button again, unit will continue working.

**6.** In working process, when you press the START button, unit will stop working and turn to ready status.

**7.** At the end of the process, beeper will prompt the user with three beeps.

**8.** In working process, fan will keep on running. Fan will keep on running 1 minute more after timer finished.

**Treatment procedure**:

1. Before operation, the dentist should check the oral cavity, and communicate with the patient.
2. Evaluate and record the patient's pre-whitening treatment tooth shade,also could choose to file the pre-treatment shade of patient's teeth by taking a picture.
3. Compounding flour of pumice and a little water to polish the surface of tooth. Let the patient rinses out and make sure the teeth surface is dry.
4. Make sure that the patient is comfortable after putting the lip retractor inside.
5. Put the absorbent cotton slivers into the inside of cheek , imbrue the lip oil, and wear the tissue.
6. Paint the dental dam on the gum with thickness of 2-4mm and an extra 0.5mm extension below the gum. The dentist and the patient put on the eye goggles .Adjust the lamp, irradiate to the surface of the patient's teeth vertically. Switch the power on and preset 10 seconds or 30 s econds for the solidification of the dental dam. Switch the light on the